

## **REMARKS**

### **I. Introduction**

Claims 1-5 and 10-14 are pending and rejected, as set forth below. Applicants respectfully submit that all pending claims are in condition for allowance and respectfully request reconsideration in view of the following.

### **II. Rejections under 35 U.S.C. §103(a)**

Applicants note that the Office Action appears to include a typographical error, rejecting claims 1-5 and 10-13 under 35 U.S.C. §102(e) based on multiple references. For purposes of responding to the Office action, Applicants assume that the intended rejections of claims 1-5 and 10-13 are based on 35 U.S.C. §103(a).

Claims 1-5 and 10-13 are rejected under 35 U.S.C. §103(a) as being obvious in view of U.S. Patent No. 6,983,398 to Prabhu (hereinafter “*Prabhu*”) and U.S. Publication No. 2004/0111653 to Arimilli et al. (hereinafter “*Arimilli*”) in further view of U.S. Publication No. 2002/0004918 to Mathieu et al. (hereinafter “*Mathieu*”).

For at least the reasons set forth below, Applicants submit that the Office Action does not establish a *prima facie* case of obviousness to support the rejection of the claims under 35 U.S.C. § 103(a). In particular, the cited references, (i.e., *Prabhu*, *Arimilli*, and *Mathieu*) teach away from the combination proposed by the Office Action as discussed in section II.A. Moreover, as discussed in section II.B, even if it were proper to combine the references as suggested in the Office Action, the cited references do not disclose or suggest each and every limitation of the pending claims.

**A. The Cited References Teach Away  
From the Proposed Combination**

The cited references teach away from the combinations (and apparent modifications) proposed by the Office action. An invention cannot be deemed obvious under 35 U.S.C §103 where one or more references in a proposed combination teach away from making the combination. *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984) (where a proposed modification would render the invention disclosed in a cited reference unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the modification); *Tec Air, Inc. v. Denso Mfg. Mich. Inc.*, 192 F.3d 1353 at 1360 (Fed. Cir. 1999) (“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, ... would be led in a direction divergent from the path taken by the applicant.”).

In the present case, *Prabhu* is directed to testing processors. Col. 1, lines 5-6. *Prabhu* states, “the processors execute the test programs independent of each other, and no external hardware and/or test controller is required during the test phase.” Col. 1, lines 61-63. Further, *Prabhu* discloses, “a processor 110 executes its corresponding test program independent of other processors. Each processor 110 starts and/or stops its program at any time, at irregular intervals, and/or without other processors knowing about it, as long as the test results are available to be analyzed when analyzing the test results starts.” Col. 5, line 64 – col. 6 line 2 (emphasis added).

Page 2 of the Office action states, “*Prabhu* fails to explicitly state performing the first self test process in response to a first actuation of a test control by a user of the system. *Arimilli* et al. discloses this limitation in paragraph 0117.” *Arimilli*, at paragraph 0117, states: “the execution of the manufacturing test program can be initiated by the user, the operating system, or the hypervisor.” However, since *Prabhu* expressly states that each processor starts and/or stops its program at any time, at irregular intervals, a user defined actuation, as proposed by the Office

action, would prevent the processor from starting and/stopping *Prabhu*'s program at any time, at irregular intervals. Instead, the processor would be forced to start and stop its program at a user defined time. Also, *Prabhu* states, "each processor runs at its own clock frequency, which is usually much higher than that of the test equipment .... since test time is short, more tests may be implemented." Col. 3, lines 27-32. Each processor running independently, according to its own clock, could not function as intended if it performed the first self test process in response to a first actuation of a test control by a user of the system, nor if it performed the second self test process in response to a second actuation of the test control. Thus, *Prabhu* expressly teaches away from the modification proposed by the Office action, since the modification would render the system in *Prabhu* unsatisfactory for its intended purpose.

Additionally, it is not clear, and the Office action does not explain why, one of ordinary skill and common sense would be motivated to extract *Arimilli*'s manufacturing test program initiated by the user piecemeal from *Arimilli*'s Systolic Manufacturing Level Chip Test Program. This would leave behind *Arimilli*'s supporting technique of running a manufacturing-level test program routinely while the processor is installed in a normal operating environment, (the purpose of *Arimilli*'s "test" and runs counter to *Prabhu*'s method of testing a processor prior to installation of the device in an operating environment).

**B. The Proposed Combination Does Not Teach or Suggest the Limitations of the Rejected Claims**

The Office action contends that the limitations of independent claim 1 are obvious with respect to *Prabhu* in view of *Arimilli* and *Mathieu*. However, none of these references, alone or in combination, teach or suggest each and every limitation of claim 1. Specifically, neither *Prabhu*, *Arimilli* or *Mathieu*, alone or in combination, teach the elements of "performing the first self test process in response to a first actuation of a test control by a user of the system ...

performing the second self test process in response to a second actuation of the test control prior to lapse of a first predefined period of time ... terminating the second self test process in response to a third actuation of the test control by the user of the system, wherein the third actuation is maintained for more than a second predetermined period of time,” (emphasis added).

If even a single claim limitation is not taught or suggested by one or more references, then it cannot be obvious over those references. *Application of Glass*, 472 F.2d 1388, 1392 (C.C.P.A. 1973). Here, as the Office action admits, *Prabhu* and *Arimilli* fail to disclose at least the limitations of “terminating the second self test process in response to a third actuation of the test control by the user of the system, wherein the third actuation is maintained for more than a second predetermined period of time.” See Office action, Pages 2 and 3. The Office Action contends that these limitations are taught by *Mathieu*, generally citing paragraphs 33-37. However, *Mathieu* (alone or in combination with *Prabhu* and *Arimilli*), does not disclose these limitations.

The cited sections of *Mathieu* pertain to a description of Figure 1, which depicts an algorithm for the “preparation and execution of a self-test procedure.” *Mathieu*, ¶29. In step E2 of the algorithm, a user selects “a test on the performance of the processor model by specifying the order in which the chosen instructions have to be executed,” after which an expected result is computed (step E6), and the self-test procedure is executed (step E8). *Mathieu*, ¶¶33-37 and Figure 1. However, nothing in *Mathieu* discloses or suggests “terminating the second self test process in response to a third actuation of the test control by the user of the system, wherein the third actuation is maintained for more than a second predetermined period of time” as recited in independent claim 1. Likewise, independent claim 10 recites, among other things, “a second processor that ... terminates the second self test process in response to a third actuation of the

test control by the user of the system,” and is believed to be allowable for the same reasons set forth for independent claim 1.

Accordingly, Applicants respectfully submit that neither *Prabhu*, *Arimilli*, or *Mathieu* (alone or in combination) disclose or suggest each of the limitations of independent claims 1 or 10. The remaining claims in the Application (i.e., claims 2-5 and 11-14) are each dependent on claims 1 or 10 and are thus believed to be allowable for the same reasons set forth above.

## CONCLUSION

Reconsideration is respectfully requested. Applicants believe the case is in condition for allowance and respectfully request withdrawal of the rejections and allowance of the pending claims.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to **Deposit Account No. 19-3878**.

The Examiner is invited to telephone the undersigned at the telephone number listed below if it would in any way advance prosecution of this case.

Respectfully submitted,

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